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ABSTRACT

In an attempt to determine the effects on creative or free writing of the i.t.a. program, as well as to determine whether any relationship exists between scores on a readiness test and achievement in this form of written composition, an empirical study was conducted in two middle income communities with 140 white first-grade youngsters. The i.t.a. program was compared to two different written composition programs, both of which used the traditional orthography or alphabet. One traditional orthography program (t.o.+), emphasized correctness of form. In the other program (t.o.-), samples were acceptable as they were turned in regardless of errors in mechanics or flaws in content and style. In the i.t.a. program, correction only occurred when it was indicated that a child was using a character incorrectly through a misunderstanding of its sound value. As in the t.o.- program, only positive peer reaction was solicited. The data showed that high reading readiness achievement correlated significantly with achievement in creative writing and that the i.t.a. instructional program was more effective than the other two. This result may indicate the existence of an additional factor (writing) in the readiness complex and should be investigated further. (LL)

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i.t.a. AS A WRITING MEDIUM

Judy Iris Schwartz

Imagine the following scene. It is a first-or second-grade class at composition time. The teacher has distributed paper and stands poised to help the children as they start to write. Small, pencil-laden hands begin to move laboriously across the paper. Now the teacher is rushing from child to child as they ask how to spell this word and that. Inside these children's minds pictures flash, words come and go. They dream of last night's fire in the local neighborhood. They can hear the shrill screech of the fire engine, feel the push and shove of the crowd, and smell the sting of burning smoke. Words come and go, yet, on the paper, what do you see -- barely a sentence or two. Words flash through their minds like the revolving light atop the police car that flew to the scene as the few stilted and simple phrases appear haltingly, almost begrudgingly on their papers. This scene is a real one reenacted daily in many schools in rich neighborhoods and poor to the discouragement of both children and teachers.

In an effort to ease the burden of physically manipulating a pencil across paper, some teachers have turned to having children dictate stories, and research of as far back as forty years demonstrated the superiority of dictated over written compositions (1). Others, such as Burrows, Jackson and Saunders believing in the primary importance of creative expression, deemphasized matters of form and correctness (2). Instead of insisting on correct spelling, for example, children are encouraged to spell words as they sound. Some British researchers believing that inconsistencies in English sound-symbol correspondence contribute to the beginner's difficulty in mastery of written composition, suggest the

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adoption of the Initial Teaching Alphabet (i.t.a.) which regularizes this correspondence (3). This is a specially designed alphabet developed by Sir James Pitman which consists of forty-four letters or graphemes each of which corresponds to a basic sound unit or phoneme in spoken English (5.)

In an attempt to determine the effects on creative or free writing of the i.t.a. program, as well as to determine whether any relationship exists between scores on a readiness test and achievement in this form of written composition, an empirical study was conducted in two Nassau County, New York, middle-income communities with 140 white first-grade youngsters, seventy-five of which were male, and seventy-four female.

PROCEDURE

The subjects were heterogeneously grouped into six classes which were randomly assigned to six teachers. Their achievement in reading readiness was determined from scores obtained on the New York State Readiness Tests which were administered at the beginning of the school year (4). The readiness scores were found to be above the national norm, and this distribution was consistent through the entire sample. Subjects were categorized as demonstrating high, medium and low readiness achievement on the basis of their scores falling into the upper, middle or lower third percentiles.

The i.t.a. program was compared to two different written composition programs, both of which used the traditional orthography or alphabet. One traditional orthography program (t.o.+), emphasized correctness of form. Here the teacher corrected elements of mechanics and altered the content and style of the children's writing. Peer group evaluation was also involved. Correction, revision and rewriting were components of this instructional program. In the second traditional orthography program (t.o.-), samples of writing were acceptable

as they were turned in regardless of errors in mechanics or flaws in content and style. Children were encouraged to spell phonetically. Moreover, no suggestions for altering the compositions were sought from the peer groups. Instead, they were encouraged to concentrate and comment on favorable aspects of the writing. In the i.t.a. program the only correction of the writing occurred when it was indicated that a child was using a character incorrectly through a misunderstanding of its sound value. As in the t.o. - program, only positive peer reaction was involved.

Data were collected in May of the first-grade year when subjects wrote on two preselected topics in two separate sessions. Both writing sessions were administered under carefully controlled conditions. One session used a visual stimulus, and the other used an aural one. The compositions were retyped with spelling corrected, and coded to preserve the anonymity of writer and instructional program.

Each composition was then judged by three raters who had been trained in the use of the Analytic Rating Scale. This instrument was developed by the researcher to measure the mechanics, content and style of the first graders' written composition.* In a pilot study the Analytic Rating Scale had been applied to a sample of 120 first grade compositions. Ten compositions randomly selected from the 120 were used to estimate the instrument's realiability and validity. An average rank-order coefficient of correlation of .93 was obtained as an estimate of reliability. Point-biserial coefficients of correlation of .79 and .81 were obtained as estimates of validity. An intraclass correlation of .92 was computed to estimate the degree of interrater reliability after training.

A random selection of 100 different words was drawn from the compositions of subjects on each level of reading readiness achievement within each

* SEE APPENDIX

instructional program. This procedure counted as different words : proper nouns of people and places; inflected forms; derived forms; and each different noun, pronoun, verb, adjective, adverb, conjunction, article and preposition. Each different word was checked against the Rinsland list of children's written vocabulary in grades one through eight (6). Point values were assigned to the different words on the basis of the frequency group into which they fell.

At the conclusion of the study, the same statistical treatments were applied to the data obtained on the Analytic Rating Scale and on the word frequency count analysis. A 3X3 analysis of variance was used to determine statistical significance. Where an overall significant F-ratio was obtained, a Tukey (a) multiple comparisons test was carried out. In addition, an estimated omega squared test for two-way analysis of variance was applied to the data.

RESULTS

TABLE 1
Analysis of Variance Summary Table of Word Frequency Count Data

Source	D.F.	S.S.	M.S.	F
Between Programs	2	0.120	0.060	--
Between Levels	2	2.234	1.117	--
Interaction	4	6.543	1,636	--
Within	891	3583.014	4.021	
Total	899	3591.911		

When the word frequency count data were analyzed, no statistically significant differences were found between instructional programs, levels of reading readiness or the interaction. A look at Table 1 will show that the error variance (Within) was much greater than the systematic variance attributed to each of the independent variables (Programs and Levels) and the interaction. Therefore F-ratios of less than one were obtained. Moreover, the estimated omega squared test

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found the amount of variance in the word frequency count data accounted for by instructional programs, levels of reading readiness achievement, and interaction to be less than one percent and negative. The absence of relationship in the word frequency count data was clearly indicated.

Contrasted with this, were the results obtained on the Analytic Rating Scale data.

TABLE 2

Analysis of Variance Summary Table of Analytic Rating Scale Data

Source	D.F.	S.S.	M.S.	F	P
Between All Groups	8	3761.472	470.184	12.564	.001
Within	131	4902.153	37.421		
Between Programs	2	1235.044	617.522	16.502	.001
Between Levels	2	2354.726	1177.363	31.463	.001
Interaction	4	171.704	42.926	1.147	n.s.
Within	131	4902.151	37.421		
TOTAL	139	8663.625			

As can be seen from Table 2, all F-ratios, except the interaction, showed high statistical significance, each with a probability of less than one in one thousand times of occurring merely by chance.

The results of the Tukey (a) multiple comparisons test on the Analytic Rating Scale data are shown in Table 3. Out of a total of thirty-six possible comparisons, sixteen were significantly different. The clearest relationship was that of reading readiness achievement, with the high level being almost uniformly superior to the low level, and superior to the medium level, as well. In the majority of cases also, the significant differences favored the i.t.a. over the t.o.+ and t.o.- programs.

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TABLE 3

Means Found to be Significantly Different on the Tukey (a) Multiple Comparison Test

Means	BX	CX	CY	BY	AX	BZ	CZ	AY	AZ
BX						**	**	**	**
CX						**	**	**	**
CY						**	**	**	**
BY							**	**	**
AX									**
BZ									
CZ									
AY									
AZ									

Key: A = i.t.a. X = Low Reading Readiness Achievement
B = t.o.+ Y = Medium Reading Readiness Achievement
C = t.o.- Z = High Reading Readiness Achievement

Finally, the estimated omega squared test revealed that thirteen percent of the variance in the Analytic Rating Scale data was accounted for by the instructional programs, twenty-six percent by the readiness levels, and less than one percent by the interaction.

CONCLUSIONS

There are a number of reasons which may account for the absence of relationship in the word frequency count data. For one thing, the Rinsland list antedates the impact of television and whatever influence this medium may have on the vocabulary of youngsters. Another distortion may have resulted from important changes in the makeup of the American population since 1945, with many people moving to cities and surrounding suburban areas. The Rinsland list reflects the older, rural culture with words such as cow, calf,

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and barn falling into the first thousand frequency. The rural words are used infrequently by today's urban and suburban children, whereas words such as supermarket, pizza and astronaut occur frequently in their language but do not appear on the Rinsland list. Also, the bulk of the words which constituted Rinsland's first grade sample was based on oral not written vocabulary. For reasons such as these, it appears that the time has come to develop a new word frequency count list which accurately reflects current written vocabulary.

The Analytic Rating Scale data showed that high reading readiness achievement correlated significantly with achievement in creative writing, and that the i.t.a. instructional program contributed to higher achievement in such writing than the other two programs. While there is practically no other research evidence relating reading readiness to writing achievement, this result may indicate the existence of an additional factor (writing) in the readiness complex and should be investigated further.

The few empirical studies comparing written composition in i.t.a. and traditional orthography programs report like findings to this one. The more uniform phoneme-grapheme correspondence in i.t.a. plus its lack of emphasis on mechanical accuracy are obvious factors which may contribute to this higher achievement. But, investigation should be made of more subtle factors. For example, in the t.o.- program children were encouraged to spell phonetically in their creative writing and they did so, making up their own haphazard system which they had to revise at each writing session. Compare this to the uniform writing system presented to the i.t.a. children which, once learned, was available to them in a consistent form at all times. Again, the t.o.- children

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used their more regularized writing system only for creative writing, while i.t.a. children used it consistently in all reading and writing activities. What effect do these factors have upon writing performance?

One thing, however, persists. Those first-or second-grade youngsters, heads filled with ideas, with words and dreams are looking for a key which can unlock for them the mystery and excitement of seeing the translaction of their thoughts into written symbols. The results of this study indicate that i.t.a. may be that key for some of them, at least.

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APPENDIX

ANALYTIC RATING SCALE MANUAL

CODE NUMBER _____

OVERALL RATING _____

General Directions

This manual contains the directions and forms for rating the written compositions on mechanics, content, and style. Preceding each page containing the rating scale for each broad category of mechanics, content and style are the directions for using the particular scale. Rate all compositions first on mechanics, second on content, and last on style. In each instance, consult the directions for the administration of each scale. As you begin to work on a composition, note its code number immediately at the top of the cover sheet of its manual in the appropriate space. After you have concluded rating all compositions (first on mechanics, second on content, and last on style) add the total points obtained on each separate scale (mechanics, content and style) on each composition and note this number at the top of the cover sheet of its manual in the appropriate space. Do not put any identifying marks on the compositions you are rating. Following are the steps to be used in the administration of the Analytic Rating Scale:

1. Write the code number of each composition on the cover sheet of the manual in the appropriate space.
2. Consult the directions for administration of the mechanics scale.
3. Rate all compositions on mechanics.
4. Consult the directions for administration of the content scale.
5. Rate all compositions on content.
6. Consult the directions for administration of the style scale.
7. Rate all compositions on style.
8. Sum the total ratings obtained on each composition on mechanics, content and style to obtain the overall rating.
9. Recheck the addition.
10. Note the overall rating obtained on each composition on the cover sheet of its manual in the appropriate space.

Directions for Administering Mechanics Scale

1. Length of terminal units

A terminal unit is defined as a unit which is grammatically capable of being terminated with a capital and a period or other terminal punctuation mark. In the following passage slant lines are used to indicate terminal units:

> Bobby got a new dog / and he called him Spotty / and he took him to his friend Jimmy / and Jimmy said he was very cute / he said he wished he could have a dog like Spotty /

Average of less than 5 words per terminal unit...Poor (1 point)
Average of 5-8 words per terminal unit ...Average (2 points)
Average of more than 8 words per terminal unit...Superior (3 points)

2. Number of dependent clauses

A dependent clause is defined as one which functions as a noun, adjective or adverb in a terminal unit, as the underlined phrase in the following sentence:

> We played until it was dark.

None ...Poor (1 point)
One to 2 ...Average (2 points)
More than 2...Superior (3 points)

3. Number of terminal units with or without related dependent clauses

Less than 4...Poor (1 point)
Four to 6 ... Average (2 points)
More than 6...Superior (3 points)

4. Number of different words

Count each of the following forms as a different word the first time it occurs in the body of a composition: proper names of people and places (e.g., Sally, Chicago); inflected forms-plurals and the possessive case of nouns (e.g., boys, boy's), past tense, third person singular, present indicative and the present participle of verbs (e.g., walked, walks, walking), comparative and superlative forms of adjectives and adverbs (e.g., bigger, biggest, sooner, soonest); derived forms-root words plus a prefix, suffix, or both (e.g., unhappy, happiness, unhappiness); and each different noun , pronoun, verb, adjective, adverb, conjunction, article and preposition.

Less than 15	...Poor	(1 point)
Fifteen to 30	...Average	(2 points)
More than 30	...Superior	(3 points)

5. Number of running words

Number of running words consists of the total number of all words including repetitions of words which appear in the body of the composition.

Less than 20	...Poor	(1 point)
Twenty to 40	...Average	(2 points)
More than 40	...Superior	(3 points)

Mechanics Scale

Rate the items listed below according to the criteria presented in Directions for Administering Mechanics Scale as follows:

1 = poor
2 = average
3 = superior

Length of terminal units..... _____

Number of dependent clauses ..... _____

Number of terminal units with or without related dependent clauses ..... _____

Number of different words..... _____

Number of running words ..... _____

Total Score ..... _____

Directions for Administering Content Scale

1. Imaginative Elements

Imaginative elements consist of characteristics which go beyond the mere recounting of concrete experience and which extend reality by embellishing it with subjective or fanciful factors. The sentence, "I planted a seed last May," simply restates an experience. The sentence, "Inside the seed I planted a tiny life was waiting to be born," goes beyond the reality of the experience and embellishes it.

No evidence or 1 example	= poor	(1 point)
Two to 3 examples	= average	(2 points)
More than 3 examples	= superior	(3 points)

2. Characterization

Characterization consists of the details included in the composition which clarify, broaden and deepen the object or person under discussion. The sentence, "He is a funny boy," says only that the character is a boy and that he is funny. The sentence, "Timmy is a funny boy with millions of freckles over his silly face," says a good deal more.

No evidence or 1 example	= poor	(1 point)
Two to 3 examples	= average	(2 points)
More than 3 examples	= superior	(3 points)

3. Plot Sequence

Plot sequence deals with the structure of the story which consists of these three elements, a beginning, middle and end.

None or one of the 3 elements	= poor	(1 point)
Two of the 3 elements	= average	(2 points)
Three of the 3 elements	= superior	(3 points)

4. Element of Surprise

Does the story incorporate any evidence of surprise in describing characters, in the setting, in the conclusion or in any other of its aspects?

No evidence	= poor	(1 point)
Partial evidence	= average	(2 points)
Clear evidence	= superior	(3 points)

5. Appropriate Conclusion

The conclusion of the story, even though it may be an open-ended one, should be appropriate from the standpoint of the story's focus and direction. A story about the planting of a flower seed in May with details on the weeks of waiting and watching for the flower to emerge would end with some kind of account of the flower, whether it is humorous, surprising or otherwise. In addition, if a problem is presented in the story, it should be treated in the conclusion. A story which involves a conflict between the child's wish for a new bicycle and the lack of money to purchase it should conclude with some happening related to getting or not getting the bicycle. For example, the child decides to save his allowance money for it, or do chores to earn money to purchase it. The story may be concluded by a description of the child's joy and surprise when he finds that his birthday present is the shiny, new bicycle he has wanted, or his realization that he cannot have the bicycle.

No evidence	= poor	(1 point)
Partial evidence	= average	(2 points)
Clear evidence	= superior	(3 points)

Content Scale

Rate the items listed below according to the criteria presented in Directions for Administering Content Scale as follows:

1 = poor
2 = average
3 = superior

Imaginative elements	.....	_____
Characterization	.....	_____
Plot sequence	.....	_____
Element of surprise	.....	_____
Appropriate conclusion	.....	_____
Total Score	.....	_____

Directions for Administering Style Scale

1. Revealing Detail

This factor is shown by the amount of detail included in describing the setting, the characters, the events and the action of the story. In the sentence "John became afraid," the reader learns only one thing about John, that he became afraid. In the sentence, "John looked into the window of the old house and saw cobwebs, broken furniture and something that looked like a ghost," the reader learns how John feels, why he feels that way, and a clue to his probable next action.

No evidence	= poor	(1 point)
One or 2 examples	= average	(2 points)
More than 2 examples	= superior	(3 points)

2. Action

Is action manifested in the story through the characters activities and movements? Is the story abundant with action verbs (e.g., run, jump, gallop)? Are the characters or objects engaged in action of one kind or another (e.g., scream, laugh, tickle, shoot, cry)?

No evidence to 2 examples	= poor	(1 point)
Three to 5 examples	= average	(2 points)
More than 5 examples	= superior	(3 points)

3. Natural, colorful, figurative language

Is the language of the story child-like and appropriate to the content? Does it contain examples of colorful words and phrases (e.g., to describe how it feels to be outside on a very cold day, words like "tingling" and "icicle," and phrases such as "shiny snowflake?" Are there samples of figurative language (i.e., metaphor, personification, simile, hyperbole, etc.) such as "cold as an ice-cream pop?"

No evidence	= poor	(1 point)
One or 2 examples	= average	(2 points)
More than 2 examples	= superior	(3 points)

4. Character believability, consistency, vividness

Are the characters sharply drawn with sufficient detail to allow a clear picture of their personalities? Are they consistent so that the reader can interpret and predict their actions? Are the characters believable within the context of the story (e.g., if the characters are monsters, are they described in sufficient clarity, detail and consistency to

make them believable within the context of the story?)

Characters unbelievable, inconsistent, not vividly drawn = poor (1 point)

Characters mildy believable, consistent, and vividly drawn = average (2 points)

Characters clearly believable, consistent, and vividly drawn = superior (3 points)

5. Imagery

This factor consists of descriptions and figures of speech which enrich the story. Instead of saying "a long nose" it may be described as "a witch's nose with a wart right on the very end of it." Descriptions which heighten the mental picture of a character, a setting, an event or an action by incorporating subjective interpretations of it through unusual use of words are categorized as imagery.

No evidence = poor (1 point)
One to 2 examples = average (2 points)
More than 2 examples = superior (3 points)

6. Fluency

This factor is shown through the smooth-flowing and easy use of words, and the even progression of events and sequences in the story, as contrasted with choppy, halting or faltering sentences and uneven, incomplete or inappropriate sequences.

Not fluent = poor (1 point)
Mildly fluent = average (2 points)
Very fluent = superior (3 points)

7. Dialogue

Do any of the characters engage in direct and/or indirect conversation? Are sentences such as the following included: "Timmy said, 'I hate old Mr. Brown.'" or "Timmy said that he hated old Mr. Brown."?

No evidence = poor (1 point)
One example = average (2 points)
More than 1 example = superior (3 points)

8. Overall appropriateness to content

Does the style complement the story's content, or is it at variance with it? If it is an adventure story, are there many action words and sequences which increase the impression

of a fast-moving plot? If it is a ghost story, do the words and actions denote and connote an aura of mystery, suspense and fear? In a humorous story, is the style light and gay?

Inappropriate	= poor	(1 point)
Mildly appropriate	= average	(2 points)
Very appropriate	= superior	(3 points)

Style Scale

Rate the items listed below according to the criteria presented in Directions for Administering Style Scale as follows:

1 = poor
2 = average
3 = superior

Revealing detail	.....	_____
Action	.....	_____
Natural, colorful, figurative language	.....	_____
Character believability, consistency, vividness	.....	_____
Imagery	.....	_____
Fluency	.....	_____
Dialogue	.....	_____
Overall appropriateness to content	.....	_____
Total Score	.....	_____